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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,663	09/20/2003	Christopher Reon Gentle	403076-A-01-US (Gentle)	4616

7590 07/17/2007
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EXAMINER

WYSZYNSKI, AUBREY H

ART UNIT	PAPER NUMBER
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2134

MAIL DATE	DELIVERY MODE
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07/17/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/664,663

Applicant(s)

GENTLE ET AL.

Examiner

Aubrey H. Wyszynski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 7, 9-11, 13-20, 26, 27, 30-32, 36, 38-40, 42-45 and 48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7, 9-11, 13-20, 26, 27, 30-32, 36, 38-40, 42-45 and 48 is/are rejected.
- 7) ☒ Claim(s) 42-45 and 48 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The response of 4/11/07 was received and considered.
2. Claims 4-6, 8, 12, 21-25, 28-29, 33-35, 37, 41, 46 and 47 are canceled.
3. Claims 1-3, 7, 9-11 13-20, 26-27, 30-32, 36, 38-40, 42-45 and 48 are pending.

Response to Arguments

4. Applicant's arguments with respect to claim 1 have been fully considered but they are not persuasive. Fauble discloses reading an encryption seed/encryption key, from a device reader/computing device (fig. 4, #42), connected to the keyboard (fig. 4, #50).

The rejection has been modified below for further clarification.

5. Applicant's arguments with respect to claim 9 have been fully considered but they are not persuasive. Fauble discloses upon depression of one key of the keyboard (start signal), the keyboard input is encrypted utilizing the second computing device public key (§[0034]). The rejection has been modified below for further clarification.

6. Applicant's arguments with respect to claim 10 have been fully considered but they are not persuasive. Fauble discloses in §[0057] depressing keys (start signal) on the reconfigurable keyboard (fig. 7, #50)...until the temporary buffer receives enough transformed in codes (keystrokes) to fill the temporary buffer (stop signal). Next, the keyboard processor encrypts the transformed codes (keystrokes) utilizing the session key. The keyboard processor transmits the symmetrically encrypted transformed codes to the user computer device (§[0058]).

7. Applicant's arguments with respect to claims 13-39 have been fully considered but they are not persuasive for the same reasons as discussed above. Please see the rejection below for further clarification.

Claim Objections

8. Claims 42-45 and 48 objected to because of the following informalities: Claims 42-45 and 48 should be rewritten in independent form. Appropriate correction is required.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1-2, 7, 9-11 13-20, 26, 30-31, 36, 38-40, 42-45 and 48 are rejected under 35 U.S.C. 102(e) as being anticipated by Fauble et al, U.S. Patent Application Publication No. 2003/0159053.

Regarding claims 1 and 42, Fauble discloses a method for protecting data generated by a keyboard/secure keyboard console (fig. 4, #50), comprising the steps of: reading data

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from a keypad of the keyboard; reading an encryption seed/encryption key, from a device reader/ computing device (fig. 4, #42), connected to the keyboard (fig. 4, #50); encrypting the read data using the encryption seed (§§[0031-0032]); and transmitting the encrypted data from the keyboard to a computer/second computing device (fig. 4, #44).

Regarding claims 2 and 43, Fauble discloses the method of claim 1 further comprises the steps of receiving the transmitted encrypted data by the computer; and decrypting the received encrypted data by the computer (§§[0034], lines 17-23).

Regarding claim 7, Fauble discloses the method of claim 1 wherein the step of reading the encryption seed comprises the step of enabling the device reader with a personal identification number/unique identification number (§§[0049]).

Regarding claims 9, 38 and 44, Fauble discloses a method for protecting data generated by a keyboard comprising the steps of: generating a start signal by at least one of a special key on keyboard or multi-actuation of a number of keys on the keypad (§§[0029]), reading data from a keypad of the keyboard; encrypting the read data in response to the start signal (§§[0034]); and transmitting the encrypted data from the keyboard to a computer (fig. 4).

Regarding claims 10, 11, 39, 40, 45 and 48, Fauble discloses a method for protecting data generated by a keyboard, comprising the steps of: reading data from a keypad of

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the keyboard; encrypting the read data in response to the start signal; and transmitting the encrypted data from the keyboard to a computer receiving a stop signal; stopping the encryption of the read data and transmission of the encrypted data from the keyboard to the computer ([0057]).

Regarding claim 13, Fauble discloses a method for protecting by a computer data generated by a keyboard/secure keyboard console (fig. 6, #50), where the keyboard is directly connected to the computer/user computing device (fig. 6, #42), comprising the steps of: receiving encrypted data from the keyboard by the computer; and decrypting the encrypted data by the computer ([0051]).

Regarding claim 14, Fauble discloses the method of claim 13 wherein the step of decrypting comprises the step of performing operations of decryption by at least one of a keyboard driver executing on the computer or an application executing on the computer ([0058]).

Regarding claim 15, Fauble discloses the method of claim 13 wherein the step of decrypting comprises the step of using a seed/symmetric key ([0058]).

Regarding claim 16, Fauble discloses the method of claim 15 wherein the step of using comprises the step of reading the encryption seed from a device reader connected to the computer/smart card reader (fig. 6, #72).

Regarding claim 17, Fauble discloses the method of claim 16 wherein the step of reading the encryption seed comprises the step of enabling the device reader with a personal identification number/unique identification number (¶[0049]).

Regarding claim 18, Fauble discloses the method of claim 13 further comprises the step of generating a start signal to cause the keyboard to start encrypting data/key depression (¶[0034]).

Regarding claim 19, Fauble discloses the method of claim 13 further comprises the step of generating a stop signal to cause the keyboard to stop encrypting data/key release (¶[0034]).

Regarding claim 20, Fauble discloses the method of claim 13 further comprises the step of transmitting program information to the keyboard to define encryption operations (fig. 7, Bank Server #84, transmits transformation instructions).

Regarding claim 26, Fauble discloses a keyboard/secure keyboard console (fig. 7, #50), for encrypting data before transmission to a computer/user computing device (fig. 7, #82) directly connected to the keyboard via a link/keyboard cable, comprising: an interface connected to the link/user computing device; a memory (fig. 7, #54, 56, 58); a keypad for generating the data; a device reader/user computing device (fig. 7, #82) for

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reading a directly connected device to obtain a seed/encryption key, for an encryption routine; a processor/keyboard processor (fig. 7, #60), for encrypting using the seed/encryption key, the generated data by execution of the encryption routine stored in the memory; and transmitting the encrypted data to the computer via the interface and link ([0034]).

Regarding claim 30, Fauble discloses the keyboard of claim 26 comprises a special key which when actuated causes the processor to at least start executing the encryption routine or stop executing the encryption routine/control button ([0029] & [0034]).

Regarding claim 31, Fauble discloses a processor-readable medium for protecting data generated by a keyboard/secure keyboard console (fig. 7, #50), comprising processor-executable instructions configured for: reading data from a keypad of the keyboard; reading an encryption seed/encryption key, from a device reader/user computing device (fig. 7, #82), connected to the keyboard, encrypting the read data using the encryption seed/encryption key; and transmitting the encrypted data from the keyboard to a computer ([0034], lines 1-17).

Regarding claim 36, Fauble discloses the method of claim 31 wherein the step of reading the encryption seed comprises the step of enabling the device reader with a personal identification number/unique identification number ([0049]).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 3, 27 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fauble as applied to claims 1, 26, and 31 above, and further in view of Arling et al., U.S. Patent Application Publication No. 2004/0117632.

Regarding claim 3, Fauble discloses the method of claim 1. Fauble lacks or does not expressly disclose wherein the step of transmitting comprises the step of using a wireless link over which the encrypted data is transmitted. However, Arling discloses wherein the step of transmitting comprises the step of using a wireless link over which the encrypted data is transmitted (§[0023]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Fauble with the device of Arling to wirelessly transmit the encrypted data in order to utilize wireless transmission, as taught by Arling (§[0023]).

Regarding claim 27, Fauble discloses the keyboard of claim 26. Fauble lacks or does not expressly disclose wherein the step of transmitting comprises the step of using a wireless link over which the encrypted data is transmitted. However, Arling discloses wherein the step of transmitting comprises the step of using a wireless link over which

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the encrypted data is transmitted (§§0023)). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Fauble with the device of Arling to wirelessly transmit the encrypted data in order to utilize wireless transmission, as taught by Arling (§§0023)).

Regarding claim 32, Fauble discloses the processor-readable medium of claim 31. Fauble lacks or does not expressly disclose wherein the step of transmitting comprises the step of using a wireless link over which the encrypted data is transmitted. However, Arling discloses wherein the step of transmitting comprises the step of using a wireless link over which the encrypted data is transmitted (§§0023)). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Fauble with the device of Arling to wirelessly transmit the encrypted data in order to utilize wireless transmission, as taught by Arling (§§0023)).

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aubrey H. Wyszynski whose telephone number is (571)272-8155. The examiner can normally be reached on Monday - Thursday, and alternate Friday's.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on 5712723811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AHW


KAMBIZ ZAND
SUPERVISORY PATENT EXAMINER